

## NEW NORTH CAROLINA COLLEMBOLA.

By D. L. WRAY, Raleigh, N. C.

The following two forms of Collembola have been found in the course of collecting within the State, i.e., *Isotoma acrea* n. sp. and *Lepidocyrtus beaucatcheri* var. *olforti* n. var. Types of both forms are deposited in the NCDA Insect Survey Collection.

*Isotoma acrea* n. sp.

Length up to 1.4 mm. White background over which black pigment is distributed in punctiform dots arranged in strings and groups over head and body, traces also on antennae, basal part of legs and on base of manubrium. Eyes 2 on each side of head situated 1 anteriorly in eyepatch and one removed posteriorly in the lightly separated pigment area; cornea not too prominent. Post-antennal organ consists of a broadly elliptical structure of two parts with thickened margins which are not notched in the middle. Unguis untoothed, almost straight, curved only slightly. Unguiculus straight, lanceolate, untoothed and with a broad basal lamella on inner margin. Tenent hair absent. Rami tenaculum quadridentate; corpus with 6 setae situated 3 in an anterior row and 3 in a posterior row. Antennae twice longer than head; proportions of the segments as 20:30:35:55. Organ of 3rd segment consists of 2 large, slightly bent sense rods, one situated anterior to the other, both back of integumentary folds. Mucro tridentate, with the basal tooth being as long as the antepical one. Dentes twice the manubrium. Body clothing of short curving hairs and long, ciliated hairs which become more numerous and longer on posterior of abdomen.

*I. acrea* is similar to *I. hyonosenensis* Yosii in that it has two eyes, tridentate mucro, and the unguis is unarmed. It differs, however, in the shape of the postantennal organ and other characters. In general body facies, distribution of the punctiform pigmented spots and areas, and body clothing *I. acrea* is similar to *I. andrei* Mills, *I. minor* Schäffer, and a recently found species *I. tariva*, however, the last two forms are blind, while *I. andrei* has 3 eyes in each eyepatch and all eyes are in close proximity.

Type locality: Acre, North Carolina, taken in leaf mould near a swamp, November 7, 1950, D. L. Wray.

*Lepidocyrtus beaucatcheri* var. *olforti* n. var.

This is a color form of *L. beaucatcheri* in that it is quite similar

structurally. The chief difference being in the sparseness of pigment dorsally on the thorax and the presence of a distinct band of pigment across the middle of the third abdominal segment, (see Bull. Brooklyn Ent. Soc. 1946, vol. XLI, no. 5, pp. 81-85 for figure of color pattern of *L. beaucatcheri*). Length from 0.75 to 0.9 mm. With a yellowish-white background with purplish-blue pigment as follows: base of antennae lightly pigmented, distal segments heavily pigmented; with pigment on head laterally and anteriorly near base of antennae; pigment on lateral margins of thorax and first two abdominal segments; with a heavy band of pigment across third abdominal segment; pigment on base of legs. Eyes 8 on each side, the inner two smaller. Antennae one and a half times longer than head; proportions of segments as 8: 12: 12: 25. Fourth abdominal segment to third as 55: 15. Unguis nearly straight with one pair of distinct teeth on inner margin. Unguiculus narrow, lanceolate, unarmed. Manubrium to dentes as 35: 40. Body covered with moderate length hairs and scales. Scales heavy and thickly set on venter of dentes.

Type locality: Old Fort, North Carolina. Taken August 29, 1952 from hardwood leaf mould on hillside, D. L. Wray. Also found at Asheville, Mt. Pisgah, Grandfather Mr., and Mt. Mitchell in leaf mould. This form occurs with the forma *principalis* in large populations and under the same habitat conditions.

#### LITERATURE CITED

- Mills, H. B. 1934. The Collembola of Iowa. Collegiate Press, Inc., Ames, Iowa.
- Yosii, R. 1939. Isotomid Collembola of Japan. *Tenthredo Acta Entomologica*, vol. II.

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